

ABSTRACT OF THE DISCLOSURE

The object of the present invention is to provide a rod-type linear motor which has a rod-like stationary member with increased rigidity against bending moment so as to the
5 increase in span of the linear motor and which is capable of obtaining larger thrust even when the rod-like stationary member has a relatively small width and to provide a linear guiding apparatus employing this linear motor as its driving means.

10 As shown in Fig. 2, a linear motor 10 comprises a rod-like stationary member 11 having a cylindrical body 12 made of a non-magnetic material and a plurality of plate-like segment magnets 13 accommodated in the cylindrical body such that they are stacked in the axial direction of the
15 cylindrical body, and a movable member 20 having a polyphase coil 21, wherein said rod-like member is horizontally arranged to extend through the movable member 20. In the linear motor 10, the rod-like member 11 comprises the cylindrical body having a substantially oval or
20 substantially rectangular section and the plurality of segment magnets 13 having a substantially oval or substantially rectangular plate shape which are accommodated in the cylindrical body and stacked in the axial direction of the cylindrical body, and the section of the center bore
25 of the polyphase coil 21 is substantially oval or substantially rectangular corresponding to the shape of the section of said rod-like stationary member 11.